

REMARKS

Status of Claims:

Claims 1-19, 23, 24, 30 and 32-34 were pending in the application. Claims 1-17 and 34 are withdrawn. Claims 18, 19, 23, 24, 30, 32 and 33 are pending and rejected. New claims 35-37 are hereby presented. Claims 18, 19, 23, 24, 30, 32-33, and 35-37 are now pending.

Disclosure Supporting the Instant Amendment:

Claims 35-37 are hereby presented to reintroduce the subject matter of previously-canceled claims 25, and 27-28, respectively. No new matter is hereby added.

Terminal Disclaimer

Claims 18-19, 23-24, 30, and 32 are rejected on the grounds of nonstatutory obviousness-type double patenting over Claims 1-41 of U.S. 7,108,726. Applicants respectfully request that these rejections be held in abeyance until the claims are otherwise allowable.

Rejection Under 35 U.S.C. § 102(b):

Claims 18-19, 23-24, and 30-33 were rejected under 35 U.S.C. § 102(b) as being anticipated by Samour (US 5,807,957).

The claimed polyurethanes have a structure given by the formula:

$$R-X-(P)_n-[L-(Y)_m]_r-L'-(P')_p-X'-R' \quad (I)$$

in which:

R and R', are identical or different, and represent a hydrophobic group;
X and X', are identical or different, and represent a group comprising an amine functional group which may or may not carry a hydrophobic group;
P and P', are identical or different, and represent a group comprising an amine functional group which may or may not carry a hydrophobic group (*thus X, X', P, and P' have the same meaning*);
L, L' and L'' are identical or different, and represent a group derived from diisocyanate;

Y represents a hydrophilic group;
r is an integer between 1 and 100;
n, m and p have values, each independently of the others, between 0 and 1000;
the molecule comprising at least one protonated or quaternized amine functional group and at least one hydrophobic group.

The claimed polyurethanes may be read as indicated in Table I:

Table I

Hydrophobic group	At least one amine group depending on "n"	From 1-100 diisocyanate group(s)	0-1000 hydrophilic groups	1 diisocyanate group	At least one amine group, depending on "p"	Hydrophobic group.

The polyurethane of Samour has a different chain substructure given by Table II. The claimed invention is not merely to the use of specified monomer, but also to specific chaining sequences of said monomers. Therefore disclosure of similar monomer in a polymer, without more, does not anticipate the claimed invention. As Table II demonstrates, Samour may disclose some of the required monomers, but Samour does not disclose the proper chaining of said monomers. Therefore Samour does not anticipate the claims.

Table II



If we try to use the same table, it may be read as follow:

Hydro-phobic group	When $m=0$, then $Y_1 =$ amine or amino-nium group	at least one (CH_2-CH_10) group depending in n value	Y_2 at least one (CH_2-CH_10) group depending in n value	at least one (CH_2-CH_10) group depending in n value	one (CH_2-CH_10) group depending in n value	one (CH_2-CH_10) group depending in n value	When $m=0$, then $Y_1 =$ amine or amino-nium group
	$(n) =$ positive number , then ≥ 1						$(n) =$ positive number , then ≥ 1

The Samour polymer requires the presence of an alkyleneoxy group [-(CH₂CHR₁₀)] between an amine or ammonium group and a diisocyanate group. The required alkyleneoxy of Samour is not present in the claimed polymer. Thus the claimed polymers are distinct from, and not anticipated by, those of Samour.

The chaining of monomers is a part of the claimed polymer. Samour disclosed a distinctly different chaining pattern. Therefore, Samour cannot anticipate the present invention.

In view of this distinction, the Applicants respectfully request the withdrawal of the

instant rejection.

Rejection Under 35 U.S.C. § 103(a)

Claims 18, 19, 23, 24, 30, 32 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. (U.S. 6,335,003), in further view of Samour.

The chaining of the monomers is a part of the claimed invention. Kim is silent as to chaining of monomers. Therefore, Kim cannot complete Samour as to the required chaining..

The polymer of Kim is terminated in hydrophilic groups (hydroxyl, isocyanate, and/or amine). Hydrophilic end-groups cannot anticipate or render obvious, the claimed hydrophobic end-groups. Kim may not be combined with Samour because Samour requires hydrophobic termination, which is contrary to Kim.

In view of this distinction, the Applicants respectfully request the withdrawal of the instant rejection.

CONCLUSION

Neither Samour nor Kim teach or lead to a polymer according to the formula I of the present invention. Applicants respectfully submit that claims 18, 19, 23, 24, 27, 28 and 30-33 are not prima facie obvious over Samour in view of Kim. Accordingly, claims 18, 19, 23, 24, 30, 32-33, and 35-37 are believed to be in condition for allowance and a Notice to that effect is earnestly solicited. If helpful to expedite prosecution of the application, the examiner is requested to contact the undersigned at the telephone number provided.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP

By: /john evans /
John A. Evans, Ph.D.
Reg. No. 44,100
Telephone No.: (202) 663-8096

P.O. Box 10500
McLean, VA 22102